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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/258,013	02/25/1999	ALOK KUMAR SRIVASTAVA	50277-236	3268

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EXAMINER

PRIETO, BEATRIZ

ART UNIT	PAPER NUMBER
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2142

25

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/258,013

Applicant(s)

SRIVASTAVA ET AL.

Examiner

B. Prieto

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-19 and 21-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9, 11-19 and 21-31 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to amendment filed 2/09/04, claim 10 and 20-21 has been canceled, claims 22-31 have been added, and claims 1-9, 11-19 and 22-31 remain pending.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 11, 22, 24, 27 and 29 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In this case, regarding claims 1, 11, 22 and 27, specifically added limitation, i.e. registering in response to said plurality of participants commencing participation in said distributed transaction is not found to be supported by applicant's disclosure. The described coordinator process which registers participant set to the name service is not aware as to when participant processes "commenced participating" in distributed transaction, it is upon transmitting a publication request and receiving response to this request, that this coordinator is only able to determine the a process(es) are participating (*not commencing or ending*) in a distributed transaction. The coordinator process is able to determine the actual member of a distributed transaction *any time* through out the life of the transaction. In response to the results of a publication request the coordinator process registers the actual participants in a name service (see disclosure page 7, lines 10-15, 21-25, page 8, lines 1-4, 15-23, page 9, lines 23-page 10, line 6 and page 10, line 11 – page 11, line 6). Further regarding claims 24 and 29, this claim reads that a request for participant data is received after a *participant has waited* for a threshold period of time. According to the background of invention written description, a deadlock handler detects that a *distributed transaction has been waiting a threshold period of time for a resource*, the handler may identify participants of the distributed transaction through a broadcast query technique (see page 3, lines 13-18). It is not clear where in the specification is it particularly pointed out that a process that is participating in a distributed transaction waits for period of time.

4. Claims 24 and 29 are objected because of the following informality, the claim recites the clause "said information" on the first line of the claim, this clause lacks antecedent basis. Correction is required.

5. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

6. Claims 1-9, 11-19 and 22-23, 25-28, 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iba et. al. (Iba) U.S. Patent No. 5,835,766 in view of Kanai et. al. (Kanai) U.S. Patent No. 5,778,179

Regarding claim 1, Iba teaches features of the invention substantially as claimed, teaching a distributed transaction processing system/method, (abstract), including;

registering in a table (name service) data that identifies a plurality of participants (col 10/lines 38-57) that are participating (col 1/lines 51-58) in said distributed transaction (col 8/lines 45-65, col 9/lines 15-39, transaction see col 2/lines 34-43);

said name services registers information received from client (col 4/lines 1-32, col 7/lines 66-col 8/line 5) and provides said information to clients (e.g. 17b) that require the information to retrieve said registered information (col 4/lines 23-62); however prior art does not teach wherein said name service provides said participant data to a node that request said participant data from said name service;

Kanai teach a system/method related to distributed transaction processing (abstract, col 1/lines 10-15), including; registering in a name service server data that identifies a plurality of participants of distributed transaction processing (col 12/lines 62-col 13/line 8, Fig. 26); a client includes a node different than where the name service server resides and configured to request information registered at the name service server (col 9/lines 20-45);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to include Kanai's teachings into Iba's system to enable a client node to request participating data residing on another node, wherein participant data includes information about participants in distributed transaction process, motivation would be to request participating data including processing to be executed in the other transaction identifiers processing nodes and the transaction identifiers of processing nodes currently participating in distributed processing transactions, as taught by Kanai.

Regarding claim 2, retrieve said participant data in response to said node performing deadlock detection (Iba: col 4/lines 12-32, col 7/lines 66-col 8/line 5).

Regarding claim 3, said distributed operation is a distributed transaction (abstract, col 7/lines 32-40); and registering in said name service participant data that identifies which database servers of a plurality of database servers are participating in said distributed transaction (Iba: col 7/lines 32-40, col 9/line 9-14, database: Kanai: col 1/lines 51-55).

Regarding claim 4, causing modifying to said participant data to identify a new participant in said distributed transaction (Iba: col 9/lines 25-45).

Regarding claim 5, said distributed transaction is a distributed database transaction being executed by a set of processes coordinated by a coordinator process (Iba: col 1/lines 20-24, 58-42, col 7/lines 32-45); said coordinator process causing a new process on a database server to participate in said distributed database transaction (Iba: col 8/lines 9/lines 40-45); and causing updates to said participant data in response to said new process participating in said distributed database transaction (Iba: col 9/lines 54-58, Kanai: database col 1/lines 51-56).

Regarding claim 6, comprises combined limitations discussed on claims 1-3 and 5, same rationale of rejection is applicable.

Regarding claim 7, this claim includes limitation address on claims 1-5, same rationale of rejection is applicable, further, assigning a transaction identifier to said distributed database transaction (Iba: col 9/lines 24-39, col 10/lines 52-56);

registering in said name service data that associates said participant data with said transaction identifier (Iba: col 9/lines 24-39); and

causing node to request from said name service (published) data associated with said transaction identifier (Kanai: col 9/lines 20-45).

Regarding claim 8, said name service receiving a request from a first process to supply said participant data, wherein said name service and said first process reside on said node (Kanai: col 9/lines 20-45).

Regarding claim 9, retrieving said participant data from one data structures residing on said node in response to receiving said request (Kanai: col 9/lines 20-45).

Claim 10 (canceled).

Regarding claims 11-19, these claim comprises the computer-readable medium carrying one or more sequences of instruction(s) for performing the method disclosed on claim 1, same rationale of rejection is applicable to the apparatus claim(s).

Claims 20-21 (Canceled).

Regarding claims 22-23, this claim comprises limitations discussed on claims 1-9 same rationale of rejection is applicable.

Regarding claim 25, this claim comprises limitation discussed on claims 3, and 5, same rationale of rejection is applicable.

Regarding claim 26, "all participants" is substantially "participants", that is processes (or database servers) participating in a distributed transaction or database transaction, respectively, as discussed on claims 1-6, same rationale of rejection is applicable.

Regarding claim 27, this claim is the computer-readable medium carrying a sequence(s) of instructions for performing the method of claim 1 and/or 22, same rationale of rejection is applicable.

Regarding claim 28, this claim is substantially the same as limitation discussed on claims 1-8, same rationale of rejection is applicable.

Regarding claims 30-31, this claim is the computer-readable medium carrying a sequence(s) of instructions for performing the method of claims 25-26, respectively, same rationale of rejection is applicable.

7. Claims 1 and 11 are also ejected under 35 U.S.C. 103(a) as being unpatentable over Van Den Berg U.S. Patent No. 5,459,871 in view of Neches et. al. U.S. Patent No. 4,412,285.

Regarding claims 1 and 11, Van Den Berg teaches a system/method related to distributing transaction-processing (abstract) including;

registering in a storage medium ("name service") (col 1/lines 44-49) participant data that identifies a plurality of participants (col 5/lines 29-59) that are participating in a distributed transaction process (col 3/lines 3-12, col 2/lines 43-66, distributed transaction see col 2/lines 51-66);

said name services registers information received from client including a node (col 2/lines 13-21, col 3/lines 40-53); however prior art does not teach wherein said name service provides said participant data to a node different than a node on which said service resides, that request said participant data;

Neches teaches a system/method related to distributed transaction processing (abstract), including configuring a causing a node to request status (participant) data (query status: col 13/lines 59-63, col 14/lines 16-34 transaction identities, col 3/lines 41-54, query to other nodes: col 10/lines 50-61) including data that identifies a participant that is participating in a distributed transaction process (Figs. 10-11) data registered in the requested node (col 8/lines 54-57);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to utilize the teachings of Neches to cause a not that requires information about participants in a distribution transaction operation to request participant data to a node different from the requesting node for stored information including the identity of processes participating in a distributed operation, motivation to enable a distributed update communication scheme wherein a client may ascertain the current status of processor performing task and analyze the retrieved data and ascertain when and how the resources have changed, where nodes can be interrogated with the a minimum of overhead.

8. Claim 1 as amended is rejected under 35 U.S.C. 102(b) as being anticipated by Neches et. al. U.S. Patent No. 4,412,285 (Neches hereafter)

Regarding claim 1, Neches teaches a method comprising the steps of:

registering in storage means ("name service") participant data identifies a plurality of participants that are participating a distributed operation, wherein the step of registering occurs in response to a request to a plurality of process(es) to determine which are participating in said distributed operation (see col 3/lines 41-66, col 4/lines 13-38, col 13/lines 59-63, col 14/lines 13-34 and col 15/lines 57-col 16/line 19).

Double Patenting Rejection

9. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

10. A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

11. Claims 1 and 11 rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-3 of prior U.S. Patent No. 6,594,702. This is a double patenting rejection.

12. A question of patentability is raised with respect to representative claim 1 of instant application under the judicially created doctrine of "obviousness-type" double patenting with respect to claims 1-3 U.S. Patent No. 6,594,702 and Kanai et. al. U.S. Patent No. 5,778,179

In this case, (claims 1-3 of '702 patent) describe a name service receiving/storing from a client, published data and entity information that identifies one or more duration entities each an entity that has a finite duration and that terminates after the finite duration associated with published data; said duration entity information includes receiving information that identifies a process and identifies a transaction and said duration entity information is associated with said published data; said name service supplying said published data to clients requesting.

The Kanai et. al. reference discloses causing a node that requires information about participants in said distributed transaction to request said participant data from said name service. Kanai teach a system/method related to distributed transaction processing (abstract, col 1/lines 10-15), including; registering in a name service server data that identifies a plurality of participants of distributed transaction processing (col 12/lines 62-col 13/line 8, Fig. 26); a client includes a node different than where the name service server resides and configured to request information registered at the name service server (col 9/lines 20-45).

It would have been obvious to one ordinary skilled in the art at the time the invention was made to consider Kanai's teachings to enable a client node to request participating data residing on another

node, wherein participant data includes information about participants in distributed transaction process, motivation would be to request participating data including processing to be executed in the other transaction identifiers processing nodes and the transaction identifiers of processing nodes currently participating in distributed processing transactions.

Response to arguments

13. Regarding claim 1, applicant indicates on page 10 of remarks, that “distributed transaction” is not distributed operation. It is respectfully noted that this is not supported by applicant’s disclosure. According to applicant disclosure, a transaction is an atomic unit of work (see page 1, lines 12-13), and a distributed transaction is an example of a distributed operation (page disclosure page 4, page 7, lines 16-20 and page 10, lines 7-10). According to the record on communication mailed 12/07/01, pages 3-4 of remarks, applicant indicated that the specification has clearly defined the term “distributed operation” as “an operation in which processes on multiple nodes participate in accomplishment of the operation, thus an operation is something that can be performed and accomplished, like a task or unit of work”. Arguments that transaction is not an operation are not persuasive.

14. Applicant sustains that claim limitation “registering occurs in response to said plurality of participants commencing participation in said distributed transaction” is supported by applicant’s disclosure.

In response to the above assertion, applicant indicates that added claim limitation is similar to previously presented claim 21. Claim 21 added via amendment filed 2/19/03, and further cancelled, as was presented recited. Applicant provides a description in regards to Figure 2 on page 10. Close review to applicant’s disclosure, particularly with respect to this Figure, it is noted that it does not provide a written description indicating where registration occurs in response to said plurality of participants commencing participation in said distributed transaction.

15. Applicant argues on page 12 of remarks, that prior art does not teach claim limitation as amended, specifically, registering occurs in response to said plurality of participants commencing participation in said distributed transaction, because according to applicant, in claim 1 registration occurs without regard to whether a participant has made a wait-for-request, and the participant information is requested by a

node, such as when such a node wishes to perform deadlock detection after expiration of a threshold period of time (e.g. such as time out condition being reached).

In response to the above-mentioned argument, In response to the above argument applicant's interpretation of the prior art reference is noted, however, the features upon which applicant relies (i.e., "registration occurs without regard to whether a participant has made a wait-for request, and the participant information is requested by a node, such as when such a node wishes to perform deadlock detection after expiration of a threshold period of time (e.g. such as time out condition being reached)") are not recited in the rejected claim(s). This is not a suggestion of any sort. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

16. Applicant's arguments filed 02/09/04 have been fully considered but not rendered persuasive.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Prosecution of this application is closed by means of this final office action § 1.113, applicant may request continued examination of the application by filing a Request for Continued Examination of under 37 CFR § 1.114 and providing the corresponding fee set forth in § 1.17(e) for the submission of, but not limited to, new arguments, an information disclosure statement, an amendment to the written description, claims, drawings, or new evidence in support of patentability. Or applicant whose claims have been twice rejected, may appeal from the decision of the administrative patent judge to the Board of Patent Appeals and Interferences under 35 U.S.C. §134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (703) 305-0750. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Jack B. Harvey can be reached on (703) 305-9705. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to the Central Fax Office:

(703) 872-9306, for Official communications and entry

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist).



B. Prieto

TC 2100

Patent Examiner


JACK B. HARVEY
SUPERVISORY PATENT EXAMINER